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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/626,842 | 07/23/2003 | Alan Phillips | PTG 02-76-2 | 9276 |
| 23531 | 7590 | 11/17/2005 | EXAMINER | |
| SUITER WEST SWANTZ PC LLO 14301 FNB PARKWAY SUITE 220 OMAHA, NE 68154 | | | ROSS, DANA | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3722 | |

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/626,842 | Applicant(s) PHILLIPS ET AL. | |
| | Examiner Dana Ross | Art Unit 3722 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) 25-53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-13 and 15-23 is/are rejected.
- 7) ☒ Claim(s) 7, 14 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>1/16/04; 9/15/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant has elected the invention of claims 1-12 and 16 with traverse and alternately elected the invention of claims 1-24. Examiner has reviewed Applicant's response, and whereas Examiner disagrees with Applicant's assertion as to Applicant being entitled to 20 claims, Examiner does find that claims 13-15 (dependent on elected independent claim 9) and 17-24 (dependent on independent claim 16) are similar in scope to claims 1-8 (claim 1 being independent and 2-7 being dependent on claim 1). Based on the three elected independent claims, the dependent claims of the elected independent claims will be examined.

Therefore, claims 1-24 will be examined.

Claims 25-53 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 28 September 2005.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "bore" and the "tapered" bore (see claim 12, for example), must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet,

even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 4, 12 and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claims 4, 12, and 21, it is not clear from the disclose what Applicant considers “a first end and a second end” of the tool bit shank. It is furthermore not clear how the “first end is coupled to the cutting head”. The disclosure discusses a “tapered end” 104 of the shank. Since the second end of the shank is claimed as being tapered, for the purpose of this examination, the

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claimed “second end” will be considered the disclosed “tapered end”, and the “first end” will be considered any other part of the shank opposite the tapered end near the “cutting head” of the tool bit. It is not clear from the disclosure how the shank and cutting head are “coupled”. It is furthermore not clear what Applicant considers the “bore” or how or where the “bore is tapered for receiving the second end of the shank” (see above drawing objection).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 5,826,888 (Weaver et al., hereafter ‘888).

‘888 teaches a router bit holding assembly with a chuck having a bore for receiving the shank of a bit 82 and the chuck having an opening radially formed therein and a ball 108 received in the opening (see figure 8A for example); a collar 34, sleeve 42 and body 12 with collar 34 movable axially by action of spring 30 (see col. 5, lines 27-33, for example).

7. Claims 9-13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 5,820,135 (Han et al., hereafter ‘135).

‘135 teaches a router bit holding assembly with a chuck with a bore for holding the shank of bit 23 with a ball 87 (see fig. 3A, for example); body member 25 with an internal annular tapered groove (see figure 3 and 4); sleeve 50 axially movable to insert or release the tool shank

and compression spring mechanism 41 (see col. 16, lines 46-67, for example); a tapered end of the tool bit, and tapered end to the holding assembly (see figure 3A, for example).

8. Claims 16 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 4,818,157 (Kouvelis, hereafter '157).

'157 teaches a tool bit 30 with a cutting head (see figure 1, for example) for use with a router (see col. 3, lines 15-21 for example), the tool 30 with a shaft 32 designed to fit into a bore, the shaft 32 with a groove 34 that is sized and placed to receive one or more balls 20 when the shaft 32 is placed in the bore of the tool, the balls engaging the grooves at least substantially prevent rotation of the shank within the collar 16 (see figures 1, 3, for example); the shaft 32 of the bit with a second end that abuts the back end of the collar 16, and a first end that abuts the groove 34 (see figure 1).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-4, 6, 9-11, 16-19, 21, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over '888 in view of '157.

'888 teaches a router bit holding assembly with a chuck 10 having a bore for receiving the shank of a tool 82 (see figure 8A, for example); a ball 108 received in the opening of the bore, a sleeve 42 and collar 34 axially movable (see figure 3, col. 5, lines 27-34, for example); a spring assembly (see figure 1, for example); the tool shank with a tapered end (see figure 8A, for

example); the balls 108 at least substantially preventing rotation of the shank in the bore (see figure 8B, for example).

'888 teaches a router bit, but does not expressly disclose a router bit with an annular groove formed therein.

Examiner notes that the use of router bits with annular grooves is well known in the art.

'157 expressly discloses the use of a router bit with an annular groove 34 for contact with a ball 20 (see figures 1 and 3, for example).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the router bit holding assembly with generic tool 82 as taught by '888 to include the grooved router bit as taught by '157 for the purpose of providing an improved quick-change of tools in a power tool and to retain the tool in the router bit holding assembly.

11. Claims 5, 8, 12, 13, 15, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over '888 in view of '157 and in further view of '135.

'888 in view of '157 teach all aspects of claim 1 and claim 9.

Regarding claim 5, 12, 13 and 22, '888 teaches the tapered tool shank end, but does not disclose the bore tapered.

Regarding claims 8 and 15, '888 teaches an internal curved groove, but does not disclose an internal annular tapered groove.

'135 teaches a tapered bore (see area above tool 23 of figure 3A, for example) and an internal annular tapered groove (see area 26 of figure 3A, for example).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the curved groove as taught by '888 to include the annular tapered

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groove as taught by '135 and to modify the straight bore as taught by '888 to include the tapered bore as taught by '135 for the purpose aligning the tapered workpiece with the bore for smooth insertion of the tool bit into the bore and for forcing the ball increasing radially inward (see col. 12, lines 11-22, for example).

Allowable Subject Matter

12. Claims 7, 14 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: The prior art neither anticipates nor renders obvious the combination of limitations found in independent claim 1, combined with the limitations of claim 6 and 7, the combination of limitations found in independent claim 9 combined with the limitations of claims 13 and 14, or the combination of limitations found in independent claim 16 combined with the limitations of claims 23 and 24. Specifically wherein the combination of limitations includes the shank of the tool with a slot formed therein as claimed.

The prior art teaches annular grooved tool bits (see US 6,688,610 for example) and slotted tool bits ends (see JP 2002-355727 for example), but does not disclose the combination of limitations of the router bit system as claimed in the independent and dependent claims with the tool bit as claimed in the grouping of claims 1, 6, 7 or 9, 13, 14 or 16, 23, 24.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dana Ross whose telephone number is 571-272-4480. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dana Ross
Examiner
Art Unit 3722



dmr